IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (currently amended)   An apparatus comprising:

an inverse [[a]] transformer for transforming transform domain data into spatial domain data; and

a combiner for receiving material and combining said spatial domain data with said material to form data embedded material.

2. (currently amended)   The apparatus of claim 1, wherein said inverse transformer receives said transform domain data and transforms said transform domain data into spatial domain data.

3. (original)   The apparatus of claim 1, wherein the transform domain data is watermarking data.

4. (original)   The apparatus of claim 3, wherein said material is one or more of audio material and video material.

5. (original)   The apparatus of claim 3, wherein said material is data material.

6. (original)   The apparatus of claim 1, wherein said transform domain data comprises a Pseudo Random Symbol Stream modulated by information to embed in the material.

7. (original)   The apparatus of claim 1, wherein said data comprises a Universal Material Identifier (UMID).

8. (original)   The apparatus of claim 1, wherein said material and said spatial domain data both comprise a digital bitmap.

9. (original)   The apparatus of claim 1, wherein said transform domain data comprises a digital bitmap.

10. (original)   The apparatus of claim 1, wherein said transform domain data comprises wavelet coefficients and said transformer is an inverse wavelet transformer.

11. (currently amended)   The apparatus of claim 10, wherein said wavelet coefficients comprises comprise information encoded in coefficients in at least two bands in at least one level.

12. (original)   The apparatus of claim 1, wherein said transform domain data comprises DCT coefficients and said transformer is an inverse DCT transformer.

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13. (original) The apparatus of claim 4, wherein said combiner arithmetically combines said material and said spatial domain data.

14. (original) The apparatus of claim 1, comprising:

a strength adapter for adapting the strength of said spatial domain data in dependence on said material,

wherein said combiner arithmetically combines said material and said strength adapted spatial domain data.

15. (currently amended) The apparatus of claim 14, wherein said strength adapter comprises:

a generator responsive to said material for generating strength control information; and

a multiplier for adapting the magnitude of said spatial domain data in accordance with said strength control information to produce said strength adapted spatial domain data.

16. (currently amended) The apparatus of claim 15, wherein said material comprises spatial domain material and said generator generates strength control information responsive to said spatial domain material.

17. (original)   The apparatus of claim 15, wherein said generator receives said material, analyses each value of said material and generates strength control information.

18. (currently amended)   The apparatus of ~~claim 1~~claim 17, comprising:

a strength adapter for adapting the strength of said transform domain data in dependence on said material,

wherein said inverse transformer transforms said strength adapted transform domain data into strength adapted spatial domain data and said combiner arithmetically combines said material and said strength adapted spatial domain data.

19. (currently amended)   The apparatus of claim 18, wherein said strength adapter comprises:

a transformer for transforming said material into transform domain material;

a generator responsive to said transform domain material for generating strength control information; and

a multiplier for adapting the magnitude of said transform domain data in accordance with said strength control information to produce strength adapted transform domain data.

20. (original)   The apparatus of claim 19, wherein said generator receives said transform domain material, analyses each value of said transform domain material and generates strength control information.

21. (currently amended)   A method comprising the steps of:

[[a)]] inverse transforming transform domain data into spatial domain data; and

[[b)]] combining said spatial domain data with material to form data embedded material.

22. (currently amended)   The method of claim 21, wherein prior to the inverse transforming step, [[(a)]] performing the step of:

receiving transform domain data.

23. (currently amended)   The method of claim 21, wherein the combining step step (b) comprises the step of:

arithmetically combining said spatial domain data and said material.

24. (currently amended)   The method of claim 23, comprising the step of:

[[a1)]] adapting the strength of said spatial domain data in dependence on said material and outputting strength adapted spatial domain data, and

wherein the combining step step (b) comprises the step of arithmetically combining said strength adapted spatial domain data and said material.

25. (currently amended)   The method of claim 24, wherein the adapting step step (a1) comprises the steps of:

[[a2)]] generating strength control information; and

adapting the magnitude of said spatial domain data in accordance with said strength control information.

26. (currently amended)   The method of claim 25, wherein <u>the generating strength control information</u> ~~step (a2)~~ comprises the steps of:

receiving said material;

analyzing each value of said material; and

generating <u>the</u> strength control information <u>with respect to each analyzed value of said material</u>.

27. (original)   The method of claim 21, wherein the transform domain data is watermarking data.

28. (original)   The method of claim 27, wherein the said material is one or more of audio material and image material.

29. (original)   The method of claim 27, wherein the said material is data material.

30. (currently amended)   A computer program product comprising software code for performing the steps of ~~claim 20~~ <u>claim 21</u> when said product is run on a computer.